



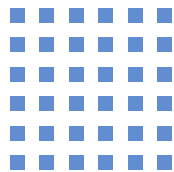
The Magic Super Store



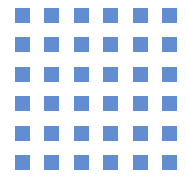
SALES ANALYSIS

Project by - Prabhat Prajapati

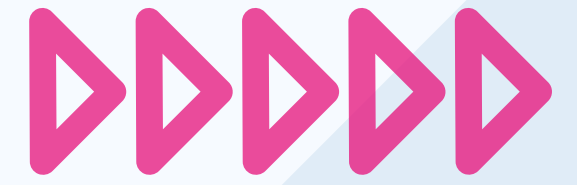
Dec` 2025



Agenda



 The Magic Super Store



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03 Why it need to be solved

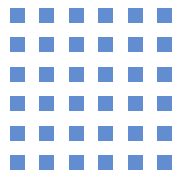
04 Creating Problems Questions for data set

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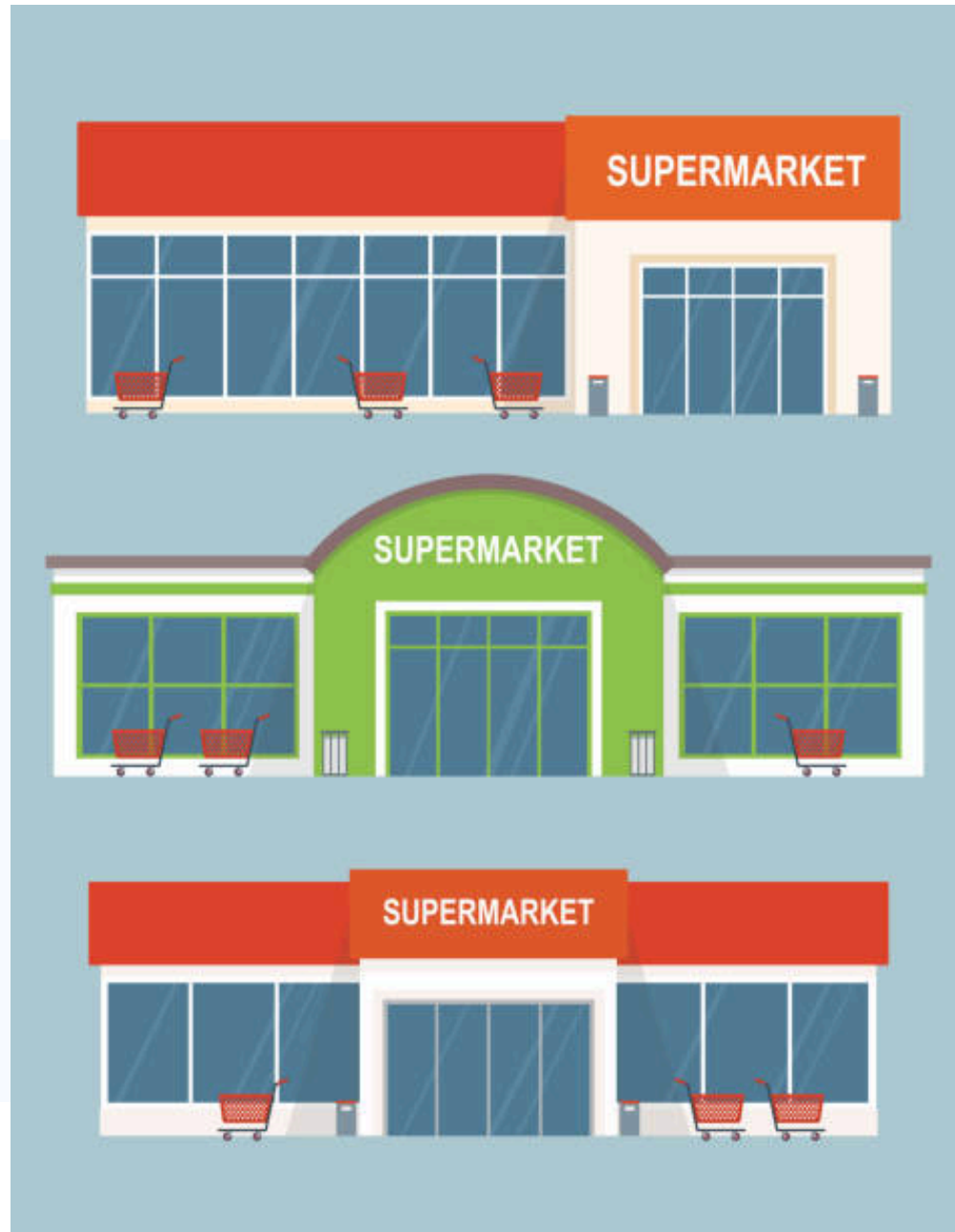
07 Conclusion



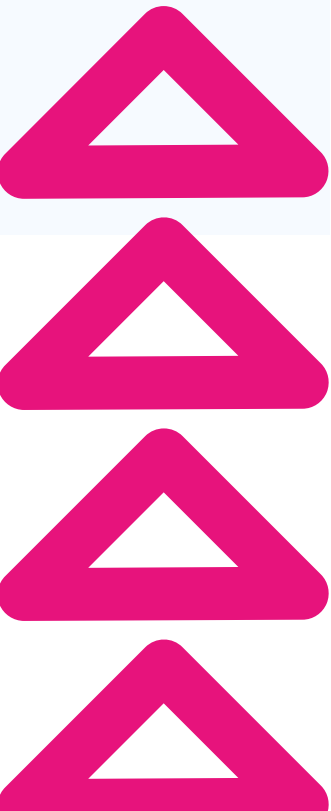


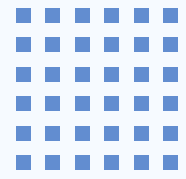
Introduction

A retail store chain tracks daily sales transactions, including order details, customer info, product categories, order times, and order status. The business wants to optimize operations, improve customer experience, and increase profitability using data-driven decisions.



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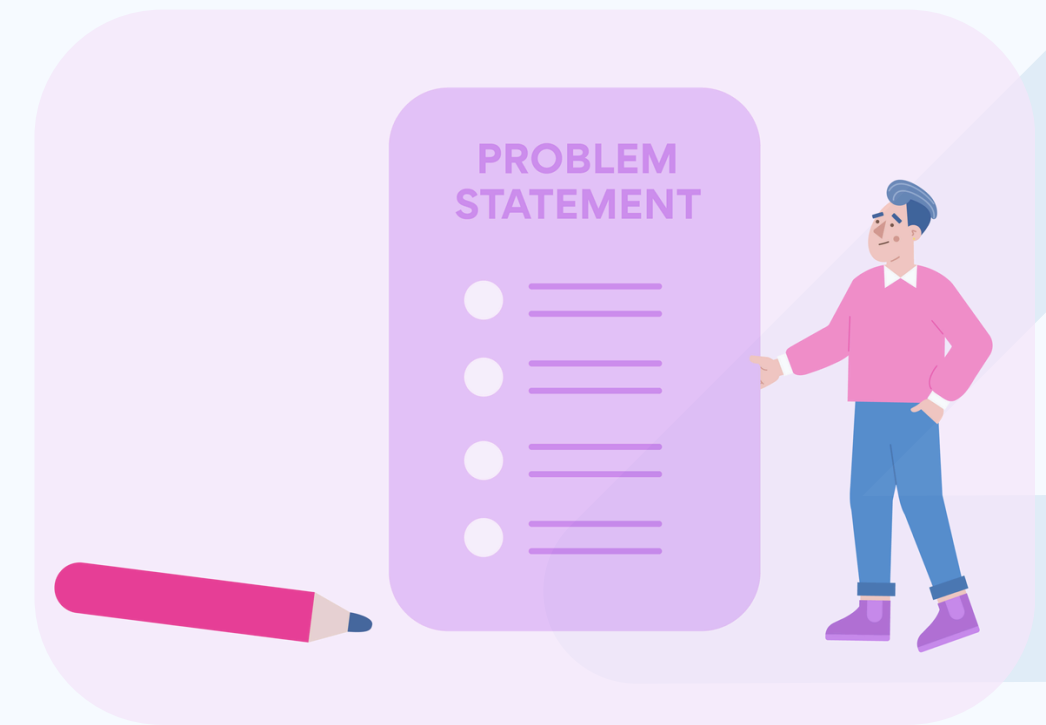




Problem Statement

Because of this, they are missing chances to earn more, losing customers, and making poor business decisions.

- The store doesn't have a clear idea about
- which products sell the most,
- customers preference,
- which items bring in the most profit,
- where things are going wrong in delivery or operations.

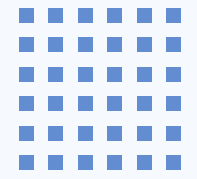


Solution

They need proper reports and simple insights to understand their sales, customers, and product performance better.



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Why it Need to be Solved

- Missed sales opportunities
- Poor inventory and staffing decisions
- Increased operational costs
- Low customer satisfaction
- Inaccurate business forecasts



Solving this will help increase revenue, improve service quality, optimize operations.

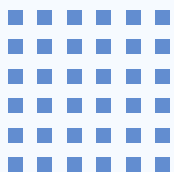


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Creating Problems Questions for data set

1. What are the top 5 most selling products by quantity?
2. Which products are most frequently canceled ?
3. What time of the day has the highest number of purchases?
4. Who are the top 5 highest spending customers?
5. Which product categories generate the highest revenue?
6. What is the return/cancellation rate per product category?
7. What is the most preferred payment mode?
8. How does age group affect purchasing behavior?
9. What's the monthly sales trend?
10. Are certain genders buying more specific product categories?





Solving SQL queries with result

What are the top 5 most selling products by quantity?

```
SELECT
    product_name, SUM(quantity) AS Total_quantity_sold
FROM sales_store
WHERE
    status = 'delivered'
GROUP BY product_name
ORDER BY Total_quantity_sold DESC
LIMIT 5;
```

• Result : –

product_name	Total_quantity_sold
Wardrobe	70
Vegetables	69
Sofa	66
Dining Table	65
Fruits	60

- -- Business Problem: We don't know which products are most in demand.
- -- Business Impact: Helps prioritize stock and boost sales through targeted promotions.





Solving SQL queries with result

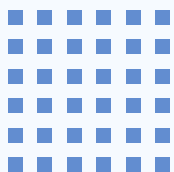
Which products are most frequently cancelled?

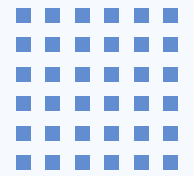
```
SELECT
    product_name, COUNT(*) AS total_cancelled_order
FROM sales_store
WHERE
    status = 'cancelled'
GROUP BY product_name
ORDER BY total_cancelled_order DESC
LIMIT 5;
```

• Result : -

product_name	total_cancelled_order
Comics	24
Sweater	23
Vegetables	21
Chair	21
T-Shirt	20

- -- Business Problem: Frequent cancellations affect revenue and customer trust.
- -- Business Impact: Identify poor-performing products to improve quality or remove from catalog





Solving SQL queries with result

What time of the day has the highest number of purchases?

```
with cte as (  
  select *,  
  case  
    when HOUR(time_of_purchase) between 0 and 5 then 'NIGHT'  
    when HOUR(time_of_purchase) between 6 and 11 then 'MORNING'  
    when HOUR(time_of_purchase) between 12 and 17 then 'AFTERNOON'  
    when HOUR(time_of_purchase) between 18 and 23 then 'EVENING'  
  end as time_of_day  
from sales_store)  
  
SELECT  
  time_of_day, COUNT(*) AS total_orders  
FROM cte  
GROUP BY time_of_day  
ORDER BY total_orders DESC;
```

• Result : -

time_of_day	total_orders
EVENING	515
MORNING	514
NIGHT	496
AFTERNOON	475

- -- Business Problem: Find peak sales times.
- -- Business Impact: Optimize staffing, promotions, and server loads.



Solving SQL queries with result



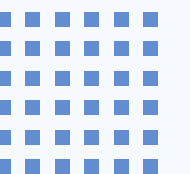
Who are the top 5 highest spending customers?

```
SELECT
  customer_name,
  FORMAT(SUM(price * quantity), 'CO') AS total_spend
FROM sales_store
GROUP BY customer_name
ORDER BY SUM(price * quantity) DESC
LIMIT 5;
```

• Result : -

customer_name	total_spend
Darshit Mann	507,530
Anahita Shenoy	455,637
Saira Ahluwalia	447,933
Gatik Khare	386,156
Samaira Subramaniam	357,388

- -- Business Problem: Identify VIP customers
- -- Business Impact: Personalized offers, loyalty rewards, and retention.



Solving SQL queries with result



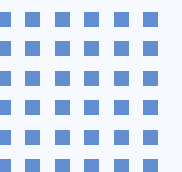
Which product categories generate the highest revenue?

```
SELECT
    product_category,
    FORMAT(SUM(price * quantity), 'C0') AS Revenue
FROM sales_store
GROUP BY product_category
ORDER BY SUM(price * quantity) DESC;
```

• Result : -

product_category	Revenue
Accessories	10,365,306
Clothing	10,195,727
Books	9,912,929
Furniture	9,659,478
Electronics	9,504,028
Groceries	9,464,153

- -- Business Problem: Identify top-performing product categorie
- -- Business Impact: Refine product strategy, supply chain, and promotions.
Allowing the business to invest more in high-margin or high-demand categories.



Solving SQL queries with result



What is the return/cancellation rate per product category?

-- cancellation

```
SELECT
    product_category,
    FORMAT(COUNT(CASE WHEN status = 'cancelled' THEN 1 END)
    / COUNT(*) * 100,2) AS cancelled_percent
FROM sales_store
GROUP BY product_category
ORDER BY cancelled_percent DESC;
```

-- return

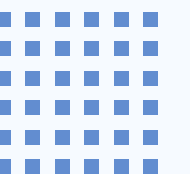
```
SELECT
    product_category,
    FORMAT(COUNT(CASE WHEN status = 'returned' THEN 1 END)/
    COUNT(*)*100,2) AS returned_percent
FROM sales_store
GROUP BY product_category
ORDER BY returned_percent DESC;
```

- -- Business Problem: Monitor dissatisfaction trends per category.
- -- Business Impact: Reduce returns, improve product descriptions/expectations.
Helps identify and fix product or logistics issues.

• Result : -

product_category	cancelled_percent
Books	26.20
Clothing	25.63
Electronics	24.68
Accessories	23.55
Furniture	22.83
Groceries	22.29

product_category	returned_percent
Accessories	31.50
Books	25.60
Clothing	24.79
Groceries	23.49
Furniture	23.41
Electronics	20.78



Solving SQL queries with result



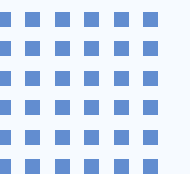
what is the most preferred payment sode?

```
select payment_mode ,count(*) total_count
from sales_store
group by payment_mode
order by total_count desc;
```

• Result : -

payment_mode	total_count
Credit Card	648
EMI	350
Debit Card	344
Cash	332
UPI	326

- -- Business Problem: Know which payment options customers prefer.
- -- Business Impact: Streamline payment processing, prioritize popular modes.



Solving SQL queries with result



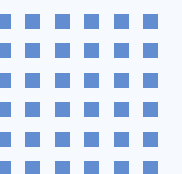
How does age group affect purchasing behavior?

```
with cte as (select *,
case
when customer_age between 18 and 25 then '18-25'
when customer_age between 26 and 35 then '26-35'
when customer_age between 36 and 50 then '36-50'
else '51+'
end as cust_age
from sales_store )
SELECT
cust_age,
FORMAT(SUM((price * quantity)), 'C0') AS total_purchases
FROM cte
GROUP BY cust_age
ORDER BY total_purchases DESC;
```

• Result : -

cust_age	total_purchases
36-50	19,460,276
51+	14,386,538
26-35	13,696,027
18-25	11,558,780

- -- Business Problem: Understand customer demographics.
- -- Business Impact: Targeted marketing and product recommendations by age group.



Solving SQL queries with result



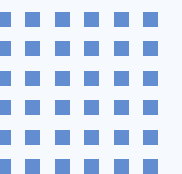
What is the monthly sales trend?

• Result : -

Years	months	total_sales	total_quantity
2023	1	4628608	478
2023	2	4698929	529
2023	3	5241364	471
2023	4	4989315	505
2023	5	3902263	418
2023	6	4100112	478
2023	7	5129904	577
2023	8	4788207	497
2023	9	5037847	512
2023	10	5886414	547
2023	11	5109229	523
2023	12	5249987	521
2024	1	339442	31

```
SELECT
YEAR(purchase_date) AS Years,
MONTH(purchase_date) AS months,
SUM(price * quantity) AS total_sales,
SUM(quantity) AS total_quantity
FROM sales_store
GROUP BY YEAR(purchase_date) , MONTH(purchase_date)
ORDER BY years , months;
```

- -- Business Problem: Sales fluctuations go unnoticed.
- -- Business Impact: Plan inventory and marketing according to seasonal trends.



Solving SQL queries with result



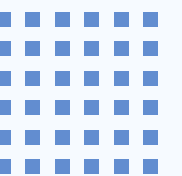
Are certain genders buying more specific product categories?

```
with cte1 as (  
  select gender , product_category ,count(product_category) as Male  
  from sales_store  
  where gender = 'M'  
  group by gender , product_category ),  
cte2 as (  
  select gender , product_category ,count(product_category) as Female  
  from sales_store  
  where gender = 'F'  
  group by gender , product_category )  
SELECT  
  product_category, Male, Female  
FROM cte1 JOIN cte2  
  USING (product_category)  
ORDER BY male DESC;
```

• Result : -

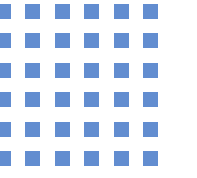
product_category	Male	Female
Books	180	152
Clothing	175	180
Accessories	171	156
Groceries	167	165
Furniture	163	183
Electronics	161	147

- -- Business Problem: Gender-based product preferences.
- -- Business Impact: Personalized ads, gender-focused campaigns.





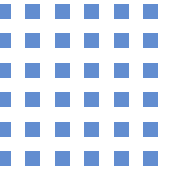
Solution of problem Statement



Suggest To Take Action

- 1.) This is in demand products through targeted promotions.,prioritize stock and boost sales
products -: [Wardrobe , Vegetables , Sofa , Dining Table , Fruits]
- 2.) This is poor-performing products to improve quality or remove from catalog.Most cancelled product
products -: [Comics Sweater Vegetables Chair T-Shirt]
- 3.) Your store have most traffic so Optimize staffing, promotions, and server loads at -: [EVENING MORNING]
- 4.) Here is your`s most loyal customers so you will suggest to this customers - Personalized offers, loyalty rewards, and retention.
Top 5 - [Darshit Mann, Anahita Shenoy, Saira Ahluwalia, Gatik Khare, Samaira Subramaniam].
- 5.) There are top categories generate the highest revenue product so update - strategy, supply chain, and promotions.
allowing the business to invest more in high-margin or high-demand categories.
Top 5 categories - [Accessories, Clothing, Books, Furniture, Electronics, Groceries].
- 6.) Most payment mod used is - Credit Card so you will add some offers on Credit Card.
- 7.) Targeted marketing and product recommendations by age group 36-50 most spending money.





Conclusion

The business should promote products that sell well and keep enough stock to increase sales. Products that perform poorly or get canceled often should be improved or removed to avoid losses. Since most customers shop in the morning and evening, more staff and better offers should be available at those times. Loyal customers should get special discounts and rewards to keep them engaged. More focus and investment should be given to categories that earn the most money. As many customers pay by credit card, attractive credit card offers should be added. Marketing should mainly target people aged 36–50 because they spend the most.

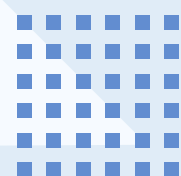




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THANK YOU



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